

UNREVIEWED

#5

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/523,100
Source: PG/10
Date Processed by STIC: 2/11/05

ENTERED



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/523,100

DATE: 02/11/2005
TIME: 16:18:15Input Set : A:\27.US2.PCT.ST25.txt
Output Set: N:\CRF4\02112005\J523100.raw

3 <110> APPLICANT: Arena Pharmaceuticals, Inc.
4 Adams, John W.
5 Connolly, Daniel T.
7 <120> TITLE OF INVENTION: HUMAN G PROTEIN-COUPLED RECEPTOR AND MODULATORS THEREOF FOR
THE
8 TREATMENT OF ISCHEMIC HEART DISEASE AND CONGESTIVE HEART FAILURE
10 <130> FILE REFERENCE: 27.US2.PCT
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/523,100
C--> 12 <141> CURRENT FILING DATE: 2005-01-31
12 <150> PRIOR APPLICATION NUMBER: US 60/400,774
13 <151> PRIOR FILING DATE: 2002-08-01
15 <160> NUMBER OF SEQ ID NOS: 12
17 <170> SOFTWARE: PatentIn version 3.2
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1881
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapien
24 <400> SEQUENCE: 1

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29 aattgaaaga ttttttttct ttacaaagaa	caggttatac gtcatttaaa ttgccaaata	180
31 tcaaatagtt tattctattt cactttctag	ggaaaaaaac caactgctcc aaaagaatgt	240
33 gtttttctcc cattctggaa atcaacatgc	agtctgaatc taacattaca gtgcgagatg	300
35 acattgatga catcaacacc aatatgtacc	aaccactatc atatccgta agctttcaag	360
37 tgtctctcac cggattttct atggttagaaa	ttgtgttggg acttggcagc aacctcactg	420
39 tattggtact ttactgcatg aaatccaact	taatcaactc tgtcagtaac attattacaa	480
41 tgaatcttca tgtacttgat gtaataattt	gtgtgggatg ttttctctta actatagtta	540
43 tccttctgct ttactggag agtaacactg	ctctcatttg ctgtttccat gaggcttggtg	600
45 tatcttttgc aagtgtctca acagcaatca	acgttttttg tatcactttg gacagatatg	660
47 acatctctgt aaaacctgca aaccgaattc	tgacaatggg cagagctgta atgttaatga	720
49 tatccatttg gattttttct tttttctctt	tcctgattcc ttttattgag gtaaatTTTT	780
51 tcagtcttca aagtggaaat acctgggaaa	acaagacact tttatgtgtc agtacaaatg	840
53 aatactacac tgaactggga atgtattatc	acctgttagt acagatccca atattctttt	900
55 tcactgttgt agtaatgtta atcacatata	ccaaaatact tcaggctctt aatattcgaa	960
57 taggcacaag attttcaaca gggcagaaga	agaaagcaag aaagaaaaag acaatttctc	1020
59 taaccacaca acatgaggct acagacatgt	cacaaagcag tgggtgggaga aatgtagtct	1080
61 ttggtgtaag aacttcagtt tctgtaataa	ttgccctccg gcgagctgtg aaacgacacc	1140
63 gtgaacgacg agaaagacaa aagagagtct	tcaggatgtc tttattgatt atttctacat	1200
65 ttcttctctg ctggacacca atttctgttt	ttaataccac cattttatgt ttaggcccaa	1260
67 gtgacctttt agtaaaatta agattgtgtt	ttttagtcat ggcttatgga acaactatat	1320
69 ttcacctctt atttatatgca ttcactagac	aaaaatttca aaaggctctg aaaagtaaaa	1380
71 tgaaaaagcg agttgtttct atagtagaag	ctgatccctt gcctaataat gctgtaatac	1440
73 acaactcttg gatagatccc aaaagaaaca	aaaaaattac ctttgaagat agtgaaataa	1500
75 gagaaaaacg tttagtgcct cagggtgtca	cagactagag aaaagtctca gtttcaccaa	1560

p.6

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79 agaaaaatat ttttaagtatt gggtatgttg taaattttca atgtgaaatg ctaattagat 1680
81 aggtcatata tattcaattt cttcattact taatgtattt gttgcatggc agtttgtaa 1740
83 agtactatca tgtgtatatt ttgtcaatat tatgtccaac agaaaatatt catgtaagtc 1800
85 atatttttta aggaataaat acatagcctt aaaacagtgt ataactttaa aatgtaaaaa 1860
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91 <211> LENGTH: 433
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93 <213> ORGANISM: Homo sapien
95 <400> SEQUENCE: 2
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101 Ile Thr Val Arg Asp Asp Ile Asp Asp Ile Asn Thr Asn Met Tyr Gln
102 20 25 30
105 Pro Leu Ser Tyr Pro Leu Ser Phe Gln Val Ser Leu Thr Gly Phe Leu
106 35 40 45
109 Met Leu Glu Ile Val Leu Gly Leu Gly Ser Asn Leu Thr Val Leu Val
110 50 55 60
113 Leu Tyr Cys Met Lys Ser Asn Leu Ile Asn Ser Val Ser Asn Ile Ile
114 65 70 75 80
117 Thr Met Asn Leu His Val Leu Asp Val Ile Ile Cys Val Gly Cys Ile
118 85 90 95
121 Pro Leu Thr Ile Val Ile Leu Leu Leu Ser Leu Glu Ser Asn Thr Ala
122 100 105 110
125 Leu Ile Cys Cys Phe His Glu Ala Cys Val Ser Phe Ala Ser Val Ser
126 115 120 125
129 Thr Ala Ile Asn Val Phe Ala Ile Thr Leu Asp Arg Tyr Asp Ile Ser
130 130 135 140
133 Val Lys Pro Ala Asn Arg Ile Leu Thr Met Gly Arg Ala Val Met Leu
134 145 150 155 160
137 Met Ile Ser Ile Trp Ile Phe Ser Phe Phe Ser Phe Leu Ile Pro Phe
138 165 170 175
141 Ile Glu Val Asn Phe Phe Ser Leu Gln Ser Gly Asn Thr Trp Glu Asn
142 180 185 190
145 Lys Thr Leu Leu Cys Val Ser Thr Asn Glu Tyr Tyr Thr Glu Leu Gly
146 195 200 205
149 Met Tyr Tyr His Leu Leu Val Gln Ile Pro Ile Phe Phe Phe Thr Val
150 210 215 220
153 Val Val Met Leu Ile Thr Tyr Thr Lys Ile Leu Gln Ala Leu Asn Ile
154 225 230 235 240
157 Arg Ile Gly Thr Arg Phe Ser Thr Gly Gln Lys Lys Lys Ala Arg Lys
158 245 250 255
161 Lys Lys Thr Ile Ser Leu Thr Thr Gln His Glu Ala Thr Asp Met Ser
162 260 265 270
165 Gln Ser Ser Gly Gly Arg Asn Val Val Phe Gly Val Arg Thr Ser Val
166 275 280 285
169 Ser Val Ile Ile Ala Leu Arg Arg Ala Val Lys Arg His Arg Glu Arg
170 290 295 300

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Input Set : A:\27.US2.PCT.ST25.txt

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173 Arg Glu Arg Gln Lys Arg Val Phe Arg Met Ser Leu Leu Ile Ile Ser
174 305 310 315 320
177 Thr Phe Leu Leu Cys Trp Thr Pro Ile Ser Val Leu Asn Thr Thr Ile
178 325 330 335
181 Leu Cys Leu Gly Pro Ser Asp Leu Leu Val Lys Leu Arg Leu Cys Phe
182 340 345 350
185 Leu Val Met Ala Tyr Gly Thr Thr Ile Phe His Pro Leu Leu Tyr Ala
186 355 360 365
189 Phe Thr Arg Gln Lys Phe Gln Lys Val Leu Lys Ser Lys Met Lys Lys
190 370 375 380
193 Arg Val Val Ser Ile Val Glu Ala Asp Pro Leu Pro Asn Asn Ala Val
194 385 390 395 400
197 Ile His Asn Ser Trp Ile Asp Pro Lys Arg Asn Lys Lys Ile Thr Phe
198 405 410 415
201 Glu Asp Ser Glu Ile Arg Glu Lys Arg Leu Val Pro Gln Val Val Thr
202 420 425 430
205 Asp
209 <210> SEQ ID NO: 3
210 <211> LENGTH: 433
211 <212> TYPE: PRT
212 <213> ORGANISM: Homo sapien
214 <400> SEQUENCE: 3
216 Met Cys Phe Ser Pro Ile Leu Glu Ile Asn Met Gln Ser Glu Ser Asn
217 1 5 10 15
220 Ile Thr Val Arg Asp Asp Ile Asp Asp Ile Asn Thr Asn Met Tyr Gln
221 20 25 30
224 Pro Leu Ser Tyr Pro Leu Ser Phe Gln Val Ser Leu Thr Gly Phe Leu
225 35 40 45
228 Met Leu Glu Ile Val Leu Gly Leu Gly Ser Asn Leu Thr Val Leu Val
229 50 55 60
232 Leu Tyr Cys Met Lys Ser Asn Leu Ile Asn Ser Val Ser Asn Ile Ile
233 65 70 75 80
236 Thr Met Asn Leu His Val Leu Asp Val Ile Ile Cys Val Gly Cys Ile
237 85 90 95
240 Pro Leu Thr Ile Val Ile Leu Leu Leu Ser Leu Glu Ser Asn Thr Ala
241 100 105 110
244 Leu Ile Cys Cys Phe His Glu Ala Cys Val Ser Phe Ala Ser Val Ser
245 115 120 125
248 Thr Ala Ile Asn Val Phe Ala Ile Thr Leu Asp Arg Tyr Asp Ile Ser
249 130 135 140
252 Val Lys Pro Ala Asn Arg Ile Leu Thr Met Gly Arg Ala Val Met Leu
253 145 150 155 160
256 Met Ile Ser Ile Trp Ile Phe Ser Phe Phe Ser Phe Leu Ile Pro Phe
257 165 170 175
260 Ile Glu Val Asn Phe Phe Ser Leu Gln Ser Gly Asn Thr Trp Glu Asn
261 180 185 190
264 Lys Thr Leu Leu Cys Val Ser Thr Asn Glu Tyr Tyr Thr Glu Leu Gly
265 195 200 205
268 Met Tyr Tyr His Leu Leu Val Gln Ile Pro Ile Phe Phe Phe Thr Val

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Input Set : A:\27.US2.PCT.ST25.txt
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272 Val Val Met Leu Ile Thr Tyr Thr Lys Ile Leu Gln Ala Leu Asn Ile
273 225      230      235      240
276 Arg Ile Gly Thr Arg Phe Ser Thr Gly Gln Lys Lys Lys Ala Arg Lys
277      245      250      255
280 Lys Lys Thr Ile Ser Leu Thr Thr Gln His Glu Ala Thr Asp Met Ser
281      260      265      270
284 Gln Ser Ser Gly Gly Arg Asn Val Val Phe Gly Val Arg Thr Ser Val
285      275      280      285
288 Ser Val Ile Ile Ala Leu Arg Arg Ala Val Lys Arg His Arg Glu Arg
289      290      295      300
292 Arg Glu Arg Gln Lys Arg Val Phe Arg Met Ser Leu Leu Ile Ile Ser
293 305      310      315      320
296 Thr Phe Leu Leu Cys Trp Thr Pro Ile Ser Val Leu Asn Thr Thr Ile
297      325      330      335
300 Leu Cys Leu Gly Pro Ser Asp Leu Leu Val Lys Leu Arg Leu Cys Phe
301      340      345      350
304 Leu Val Met Ala Tyr Gly Thr Thr Ile Phe His Pro Leu Leu Tyr Ala
305      355      360      365
308 Phe Thr Arg Gln Lys Phe Gln Lys Val Leu Lys Ser Lys Met Lys Lys
309      370      375      380
312 Arg Val Val Ser Ile Val Glu Ala Asp Pro Leu Pro Asn Asn Ala Val
313 385      390      395      400
316 Ile His Asn Ser Trp Ile Asp Pro Lys Arg Asn Lys Lys Ile Thr Phe
317      405      410      415
320 Glu Asp Ser Glu Ile Arg Glu Lys Cys Leu Val Pro Gln Val Val Thr
321      420      425      430
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329 <211> LENGTH: 1269
330 <212> TYPE: DNA
331 <213> ORGANISM: Mouse
333 <400> SEQUENCE: 4
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336 taccaaccac tgtcataccc actaagcttt caagtgtctc tctactggatt tctcatgtta 120
338 gagatcgtgc tggggcttgg cagcaacctt accgtcctgg tactttactg catgaaatcc 180
340 aacttaataca actctgtcag taacattatt acaatgaacc tccatgtact tgatgtcata 240
342 atttgtgtgg gatgcattcc tctaactata gtgaccttc tgctctcact ggagagtaac 300
344 actgctctca tctgctgttt ccacgaagct tgtgtttcct ttgcaagtgt ttcgacagca 360
346 atcaacgttt ttgctattac tctggacaga tatgacatct ctgtaaaacc tgcaaacaga 420
348 attctgacaa tgggcagagc tgtaatgcta atgacatcca tttggatttt ttctttcttc 480
350 tcattcctga ttcccttcat tgaagtaaat tttttcagtc ttcaaagtgg aaatacatgg 540
352 gcaaaacaaga cactgctgtg tgtcagtaca agtgaatact atactgagct cgggatgtac 600
354 tatcaccttt tgggtgcagat ccccatcttc ttcttcacag ttatagtcac gttgatcaca 660
356 tacactaaga tactccaggc tcttaacatc cgcataggca ctagattctc aacaggacag 720
358 aagaagaaag cccgaaagaa aaagacaatc tctctagcta cacatgagac cacagacatg 780
360 tcacaaagca gtggtgggag gaatgtcgtg tttggtgtga gaacttcagt ttctgtaata 840
362 attgccctcc ggcgagccgt gaaacgccac cgggaacgac gagaacggca gaaaagagtc 900
364 ttcaaaatgt cgttattgat tatttctaca tttcttctct gttggacacc aatttctggt 960

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/523,100

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Input Set : A:\27.US2.PCT.ST25.txt
Output Set: N:\CRF4\02112005\J523100.raw

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366 ttaaataacca ccattctatg tttaggccca agtgaccttt tagtaaaatt aagattgtgt 1020
368 tttctagtagca tggcttatgg aacaacgata ttccaccctc tcttgtagtc attcaccaga 1080
370 caaaagtttc aaaaggtctt aaagagtaag atgaaaaagc gagttgtttc catagttgaa 1140
372 gctgatccca tgcctaataa cgctgtaata cacaactcat ggatagatcc taaaagaaac 1200
374 aaaaagggtta cctatgaaga cagtgaata agagagaaat gtttagtacc tcaggtgtgc 1260
376 acagactag
379 <210> SEQ ID NO: 5
380 <211> LENGTH: 422
381 <212> TYPE: PRT
382 <213> ORGANISM: Mouse
384 <400> SEQUENCE: 5
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387 1 5 10 15
390 Asp Thr Asn Met Tyr Gln Pro Leu Ser Tyr Pro Leu Ser Phe Gln Val
391 20 25 30
394 Ser Leu Thr Gly Phe Leu Met Leu Glu Ile Val Leu Gly Leu Gly Ser
395 35 40 45
398 Asn Leu Thr Val Leu Val Leu Tyr Cys Met Lys Ser Asn Leu Ile Asn
399 50 55 60
402 Ser Val Ser Asn Ile Ile Thr Met Asn Leu His Val Leu Asp Val Ile
403 65 70 75 80
406 Ile Cys Val Gly Cys Ile Pro Leu Thr Ile Val Ile Leu Leu Leu Ser
407 85 90 95
410 Leu Glu Ser Asn Thr Ala Leu Ile Cys Cys Phe His Glu Ala Cys Val
411 100 105 110
414 Ser Phe Ala Ser Val Ser Thr Ala Ile Asn Val Phe Ala Ile Thr Leu
415 115 120 125
418 Asp Arg Tyr Asp Ile Ser Val Lys Pro Ala Asn Arg Ile Leu Thr Met
419 130 135 140
422 Gly Arg Ala Val Met Leu Met Thr Ser Ile Trp Ile Phe Ser Phe Phe
423 145 150 155 160
426 Ser Phe Leu Ile Pro Phe Ile Glu Val Asn Phe Phe Ser Leu Gln Ser
427 165 170 175
430 Gly Asn Thr Trp Ala Asn Lys Thr Leu Leu Cys Val Ser Thr Ser Glu
431 180 185 190
434 Tyr Tyr Thr Glu Leu Gly Met Tyr Tyr His Leu Leu Val Gln Ile Pro
435 195 200 205
438 Ile Phe Phe Phe Thr Val Ile Val Met Leu Ile Thr Tyr Thr Lys Ile
439 210 215 220
442 Leu Gln Ala Leu Asn Ile Arg Ile Gly Thr Arg Phe Ser Thr Gly Gln
443 225 230 235 240
446 Lys Lys Lys Ala Arg Lys Lys Lys Thr Ile Ser Leu Ala Thr His Glu
447 245 250 255
450 Thr Thr Asp Met Ser Gln Ser Ser Gly Gly Arg Asn Val Val Phe Gly
451 260 265 270
454 Val Arg Thr Ser Val Ser Val Ile Ile Ala Leu Arg Arg Ala Val Lys
455 275 280 285
458 Arg His Arg Glu Arg Arg Glu Arg Gln Lys Arg Val Phe Lys Met Ser
459 290 295 300

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/523,100

DATE: 02/11/2005
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Input Set : A:\27.US2.PCT.ST25.txt
Output Set: N:\CRF4\02112005\J523100.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 514

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7,8,9,10,11,12

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/523,100

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Input Set : A:\27.US2.PCT.ST25.txt

Output Set: N:\CRF4\02112005\J523100.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:480